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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,768

09/15/2003

Randy Wickman

7385-88348

1482

24628

7590

10/18/2005

WELSH & KATZ, LTD  
120 S RIVERSIDE PLAZA  
22ND FLOOR  
CHICAGO, IL 60606

EXAMINER

MOONEY, MICHAEL P

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/662,768

Applicant(s)

WICKMAN, RANDY

Examiner

Michael P. Mooney

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Trezza et al. (20040213538).**

Trezza et al. teaches an apparatus for guiding an optical beam progressing along an axis of transmission defined by an optical converter, such apparatus comprising: a silicon wafer assembly disposed in the axis of transmission of the optical converter with a predominant plane of the substrate disposed perpendicular to the axis of transmission and so that the optical beam passes directly through the silicon wafer assembly; and a plurality of refracting or reflecting elements adapted to reflect the optical beam disposed around the axis of transmission within a body of the silicon wafer assembly

Although Trezza et al. does not expressly state “optically transparent substrate” it would have been obvious to do so because a silicon wafer assembly as described at e.g., Trezza et al. paragraph 0134, is conventionally known to be optically transparent and in a configuration such as that shown at figure 22D is conventionally known to be a substrate.

One of ordinary skill in the art would have been motivated to expressly call a configuration such as the one shown in Trezza et al. fig. 22D an “optically transparent substrate” for the purpose of describing an apparatus/assembly with appropriate art-recognized terminology.

Thus claim 12 is rejected.

Trezza et al. teaches further comprising defining the optically transparent substrate as a mounting substrate (e.g., paragraphs 140-141). Thus claim 13 is rejected.

Trezza et al. teaches further comprising defining the optically transparent substrate as an auxiliary substrate (e.g., paragraphs 140-141; fig. 22D). Thus claim 15 is rejected.

Trezza et al. teaches further comprising the optical converter mounted to a mounting substrate so that the axis of transmission passes directly through the mounting substrate (e.g., paragraphs 140-141; fig. 22D). Thus claim 16 is rejected.

Trezza et al. teaches further comprising the mounting substrate juxtaposed with the auxiliary substrate (e.g., paragraphs 140-141; fig. 22D). Thus claim 17 is rejected.

Trezza et al. teaches further comprising defining the plurality of refracting or reflecting elements as apertures within the optically transparent substrate (e.g., paragraphs 134-141; fig. 22D). Thus claim 18 is rejected.

Trezza et al. teaches further comprising the plurality of apertures filled with a material with a lower index of refraction than the optically transparent substrate (e.g., paragraphs 134-141; fig. 22D). Thus claim 19 is rejected.

Trezza et al. teaches further comprising the plurality of apertures filled with a reflective material (e.g., paragraphs 134-141; fig. 22D). Thus claim 20 is rejected.

Trezza et al. teaches further comprising the plurality of refracting or reflective elements disposed in a circle around the axis of transmission defined by the optical converter (e.g., paragraphs 134-141; fig. 22D). Thus claim 21 is rejected.

Trezza et al. teaches further comprising the plurality of refractive or reflective elements disposing in a square around the axis of transmission defined by the optical converter (e.g., paragraphs 134-141; fig. 22D). Thus claim 22 is rejected.

Trezza et al. teaches further comprising the plurality of refractive or reflective elements disposing in a octagon around the axis of transmission defined by the optical converter (e.g., paragraphs 134-141; fig. 22D). Thus claim 23 is rejected.

Trezza et al. teaches further comprising the plurality of refractive or reflective elements disposing in a random array around the axis of transmission defined by the optical converter (e.g., paragraphs 134-141; fig. 22D). Thus claim 24 is rejected.

By the reasons and references given above each and every element of each of claims 1-11 and 25-28 is rendered obvious (e.g., paragraphs 134-141; fig. 22D). Thus

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claims 1-11 and 25-28 are rejected. If Applicant disagrees with this obviousness holding, then Applicant should submit evidence showing this obviousness holding is errant. Examiner will then consider restricting the apparatus claims from the method claims.

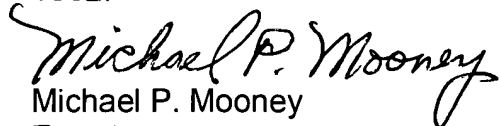
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

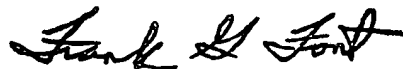
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-

1562.



Michael P. Mooney  
Examiner  
Art Unit 2883



Frank G. Font  
Supervisory Patent Examiner  
Art Unit 2883

FGF/mpm  
10/17/05